

Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: Duralay II Liquid

Company Identification:

Reliance Dental Mfg., LLC.

5805 W. 117th Place

Alsip, IL 60803

For Product Information, call: 708-597-6694 **For Medical Information, call:** 800-535-5053

Section 2 - Hazards Identification

Classification of the substance or mixture

Hazard Class – Physical, Health, environmental

	Category
Flammable Liquid	2
Skin Corrosion/Irritation	2
Eye Damage/Irritation	2A
Skin sensitizer	1
Carcinogenicity	2

Label Elements - Pictograms, Signal Word, Hazard Statements, Precautionary Statements, & Supplemental Information



Signal Word: Danger

Hazard Statements

- H225 Highly flammable liquid and vapor
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H351 Suspected of causing cancer

Precautionary Statements – Prevention, Response, Disposal

- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P210 Keep away from heat/sparks/open flames/hot surfaces
-No Smoking
- P233 Keep container tightly closed
- P240 Ground and bond container and receiving equipment
- P241 Use explosion-proof electrical/ventilating/light/.../equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 Wash hands and exposed skin thoroughly after handling
- P272 Contaminated work clothing should not be allowed out of the workplace
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P281 Use personal protective equipment as required
- P321 Specific treatment (see....on this label)
- P362 Take off contaminated clothing and wash before reuse
- P363 Wash contaminated clothing before reuse
- P302+P352 IF ON SKIN-Wash with soap and water
- P303+P361 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
+ P353
- P305+P351 IF IN EYES: Rinse continuously with water for several minutes.
+P338 Remove contact lenses if present and easy to do—continue rinsing
- P308+P313 IF exposed or concerned: Get medical advice/attention
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
- P337+P313 Get medical advice/attention
- P370+P378 In case of fire: Use CO2 for extinction

P405 Store locked up
P403+P235 Store in a well ventilated place. Keep cool
P501 Dispose of contents/container to an authorized disposal facility

Section 3 - Composition, Information on Ingredients

Hazardous Components	Case No.	Percent	GHS Ratings
Methyl Methacrylate	80-62-6	70 - 80	Skin Corrosion/Irritation(H315) 2 Skin Sensitizer (H317) 1 Specific Target Organ Toxicity – Single Exposure (H335) 3
2-Hydroxyethyl Methacrylate (HEMA)	868-77-9	5 - 10	Skin Corrosion/Irritation(H315) 2 Eye Damage/Irritation (H319) 2 Skin Sensitizer (H317) A 1
Ethyl Methacrylate	97-63-2	5-10	Skin Corrosion/Irritation(H315) 2 Eye Damage/Irritation (H319) 2 Skin Sensitizer (H317) A Specific Target Organ 1 Toxicity – Single Exposure (H335) 3
Dimethyltolylamine	99-97-8	1 - 5	Oral Toxicity Acute Tox. (H301) 3 Dermal Toxicity Acute Tox. (H311) 3 Inhalation Toxicity Acute Tox (H331) 3 Carcinogenicity (H351) 2 Skin Corrosion/Irritation(H315) Specific Target Organ Toxicity – Repeated Exposure(H373) 2 Aquatic Toxicity (H412) C 3
Triethyleneglycol Dimethacrylate	109-16-0	1 - 5	Skin Sensitizer (H317) 1

*Component names may have been omitted to protect confidential business information (CBI) in compliance with OSHA GHS HCS§ 1910.1200 Appendix E.

Section 4 - First Aid Measures

- General Advice:** Provide the SDS to medical personnel for treatment
- Inhalation:** Remove victim to fresh air. Seek immediate medical attention.
- Eye Contact:** If product gets in the eyes, flush with lukewarm water for at least 15 minutes. If irritation occurs, contact a physician.
- Skin Contact:** Rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with soap and water. If irritation, redness or swelling persists, contact a physician immediately.
- Clothing:** Remove contaminated clothing, wash thoroughly before reuse.
- Ingestion:** If ingested, do not induce vomiting. If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give anything by mouth to an unconscious person. Provide an estimate of the time at which the materials was ingested and the amount of the substance that was swallowed. Get medical attention immediately.

Notes to Physician: This product contain n,n-Dimethyl-p-Toluidine at a low concentration (does not meet criteria for reporting in section 3). While complications from this component are not expected, the presence of this material in the body leads to formation of methemoglobin, which in sufficient

concentration causes cyanosis. This is reversed spontaneously after termination of exposure. Treat cyanosis with supportive measures such as bed rest and oxygen inhalation. Thoroughly cleanse the entire contaminated area of the body. If extensive cyanosis is present, treat with methylene blue and vitamin B12.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media: Chemical (alcohol-resistant) foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media: Water spray or water stream may not be effective.

Specific Hazards Arising from the Chemical: High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerizing reaction generating heat/pressure. Closed containers may rupture or explode during a runaway polymerization. This product is a flammable liquid. Vapors of this product are heavier than air and may travel to a source of ignition and flash back to a leaking or open container. Vapor forms an explosive mixture with air.

Hazardous Combustion Products: Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.

Special Fire Fighting Procedures: Use a water spray or fog to reduce or direct vapors, and keep containers cool. Water may not be effective in actually extinguishing a fire involving this product. Do not enter fire area without proper protection. Fight fire from a safe location. Structural firefighters must wear SCBA and full protective equipment. Heat/impurities may cause pressure to build and/or rupture closed containers, spreading fire, increasing risk of burns/injuries.

Protective Equipment and Precautions for Firefighters: Wear self-contained breathing apparatus for firefighting if necessary. Do not enter fire area without proper protection. Fight fire from a safe distance/protected location. Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Use water spray to cool unopened containers. Pressure relief system may plug with solids creating risk of overpressure.

Section 6 - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions: Before cleaning any spill or leak, individuals must wear appropriate Personal protective Equipment that is specified in section 8. Deny entry to all unprotected individuals. Remove any contaminated clothing and wash thoroughly before reuse.

Environmental Precautions: Extinguish all ignition sources. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water. May contaminate water supplies/be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 434-8802.

Methods and Material for Containment and Cleaning Up

Methods for Containment: Prevent further leakage or spillage if safe to do so. Dike and contain spill with inert material (e.g. sand or earth). May contaminate water supply.

Methods for Cleaning Up: Maximize ventilation (open doors and windows) and secure all sources of ignition. Use good, local ventilation with a minimum capture

velocity of 100 ft/min (30 m/min) at point of product release. Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Clean up materials maybe a RCRA hazardous waste, a hazardous waste determination should be done by qualified personnel.

Section 7 - Handling and Storage

Precautions for safe Handling

Advice on Safe Handling:

Keep away from heat, sparks, and flame. Keep container closed after each use. Do NOT use localized heat source such as band heaters to heat/melt product. Do NOT use steam. Hot boxes or hot rooms are recommended for heating the product, which can be set at a maximum temperature of 60°C/140°F. Avoid contact with skin, eyes and clothing. Use good personal hygiene and housekeeping. After use, wash hands and exposed skin with soap and water. Do not eat, drink, or smoke while handling product. Observe precautions found on label. Ground and bond all containers when transferring. Refer to Section 8 for suggested exposure controls and personal protection. Observe precautions found on label.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions:

Store container in a cool, dry location, away from direct sunlight, heat, sparks, flame, other light sources, or sources of intense heat. Store in accordance with National Fire Protection Association recommendations. Check inhibitor levels periodically, adding to the bulk material if needed. Do not blanket or mix with oxygen-free gas as it renders the inhibitor ineffective. Vapors are uninhibited and may form polymers in vents or flame arresters, resulting in blockage of vents. Product residue may remain in empty containers. Observe all label precautions until the container is cleaned, reconditioned, or destroyed.

Incompatible Materials:

Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	OSHA – Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
METHYL METHACRYLATE 80-62-6	100 ppm TWA; 410 mg/m ³ TWA	100 ppm STEL 50 ppm TWA	NIOSH: 100 ppm TWA; 410 mg/m ³ TWA
2-Hydroxyethyl Methacrylate (HEMA) 868-77-9			
Ethyl Methacrylate 97-63-2			
Dimethyltolylamine 99-97-8			
Triethyleneglycol Dimethacrylate 109-16-0			

Engineering Controls:

Use local explosion-proof ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personnel Protective Equipment (PPE)**Respiratory Protection:**

A respirator should be worn whenever workplace conditions warrant a respirators use. None required if airborne concentrations are maintained below the exposure limit listed above. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR§1910.134 or other appropriate governing standard.

Eye/Face Protection:

Wear safety glasses, chemical goggles when splashing is possible, when dealing with this material. If necessary, refer to U.S. Osha 29 CFR§1910.133, or other appropriate governing standard. Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes.

Skin and Body Protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full Contact:

Material: Nitrile rubber
Minimum layer thickness: 0.4 mm
Break through time: 480 min

Splash Contact:

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 120 min

General Hygiene Considerations:

Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. An eyewash station and a safety shower are recommended. Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use. Wash hands thoroughly before eating, drinking, or smoking.

Section 9 - Physical and Chemical Properties	
<p>Evaporation Rate</p> <p>Specific Gravity: 1.189621611</p> <p>Physical State: Liquid</p> <p>Flash Point: 54 F, 12C</p>	<p>Boiling Range (low-high): 67 C</p> <p>Appearance: Clear</p> <p>Odor: Acrid Odor</p> <p>Flammable Limit (Air Volume%, Lower/Upper): 0%</p>

Section 10 - Stability and Reactivity

Note: Materials listed as stable may become unstable upon depletion of inhibitors (such as mequinol or hydroquinone), contact the manufacturer for exact levels and instruction on inhibitor maintenance.

Material stability: Stable

Incompatible Materials: Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers. Material has strong solvent properties and can soften paint and rubber.

Hazardous Decomposition Products: Oxides of Carbon

Possibility of Hazardous Reactions: Hazardous polymerization may occur.

Section 11 - Toxicological Information

Mixture Toxicity

Inhalation Toxicity: 37 mg/L

Component Toxicity

99-97-8 Dimethyltolylamine
Oral: 1,650 mg/kg (Rat) Dermal: 500 mg/kg (Rat) Inhalation: 1,400 mg/m³ (Rat)

Routes of Exposure: Ingestion

Target Organs: Eyes, Skin and Respiratory System

Effects of Overexposure

Product Components Listed as Carcinogenic

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
99-97-8	Dimethyltolylamine	1 to 5 %	Dimethyltolylamine: DMPT is known to the State of California to be a carcinogen and is a Prop 65 listed chemical. DMPT is a listed carcinogen by NTP. DMPT is not listed as a carcinogen by IARC and ACGIH.

Section 12 - Ecological Information

Component Ecotoxicity

Methyl Methacrylate: 96 Hr LC50 Pimephales promelas: 243 - 275 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 125.5 - 190.7 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 170 - 206 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 153.9 - 341.8 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: >79 mg/L [flowthrough]; 96 Hr LC50 Oncorhynchus mykiss: >79 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 326.4 - 426.9 mg/L [static] 48 Hr EC50 Daphnia magna: 69 mg/L 96 Hr EC50 Pseudokirchneriella subcapitata: 170 mg/L.

2-Hydroxyethyl Methacrylate (HEMA): 96 Hr LC50 Pimephales promelas : 213-242 mg/L (flow-through); 96 Hr LC50 Pimephales promelas: 227 mg/L.

Dimethyltolylamine: 96 HR LC50 Pimephales promelas: 42-50.5 mg/L (flow through).

Section 13 - Disposal Considerations

Waste Treatment Methods

Disposal of Wastes

It is the responsibility of the generator to determine at the time of disposal whether this product meets the criteria of a hazardous waste. When discarded as shipped it is a hazardous waste by the EPA under RCRA. After addition of excess inhibitor, dispose waste material in accordance with federal, state and

local regulations. Waste disposal options include landfilling solids at permitted sites. Incinerate in a chemical incinerator equipped with an afterburner and scrubber. Use registered transporters.

Contaminated Packaging

Reuse of empty drums or containers is not recommended. Employees should be advised of the potential hazards, due to residual flammable material, associated with empty containers. Dispose of all empty containers properly, in accordance with Federal, State and Local regulations

Section 14 - Transport Information

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	FLAMMABLE LIQUID, NOS (Methyl Methacrylate Monomer; RQ: 1000lbs	UN1247	II	3
IATA	FLAMMABLE LIQUID, NOS (Methyl Methacrylate Monomer	UN1247	II	3
IMDG	FLAMMABLE LIQUID, NOS (Methyl Methacrylate Monomer	UN1247	II	3

Section 15 - Regulatory Information

State of California Safe Drinking Water and Toxic Enforcement Act of 1986

(Proposition 65): WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

99-97-8 Dimethylolylamine 1 to 5 % Carcinogen

SARA 313: Methyl Methacrylate 80-62-6

US State Right-to-Know Regulations: None

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
	Canada DSL	Yes
	EINECS	Yes
	SARA Hazard categories	No
	TSCA Inventory	Yes

Section 16 - Additional Information

Hazardous Material Information System (HMIS) Rating		National Fire Protection Association (NFPA) HMIS & NFPA Hazard Rating	
HEALTH	2	HEALTH	2
FLAMMABILITY	3	FLAMMABILITY	3
PHYSICAL HAZARD	2	INSTABILITY	2
PERSONAL PROTECTION	B		

HMIS & NFPA Hazard Rating

*= Chronic Health Hazard

0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH

B = Gloves and Safety Glasses or Chemical Goggles

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Reliance Dental Mfg. Co. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if user has been advised of the possibility of such damages.

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